

Title (en)
OPTOELECTRONIC SCANNING HEAD

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Application
EP 86113001 A 19860920

Priority
DE 3537857 A 19851024

Abstract (en)
[origin: US4742401A] An opto-electronic scanning head for drum and flat bed scanning apparatus for point-by-point and line-by-line scanning of opaque and transparent originals which are illuminated point-by-point. The housing of the scanning head 7 has a front panel 9 which is displaceable along the optical axis 12 of the scanning objective lens 11 and has a housing part which is stationary with respect to the optical axis 12. The scanning objective 11 is mounted in the front panel 9, but the diaphragm 13 and the opto-electronic transducer 14 are mounted in the housing portion 8. The scanning objective 11 can be displaced over a broad range with a sensitive adjustment mechanism for the front panel 9 so that the focus range can always be placed into the image plane of the originals and thus optimum image sharpness can be achieved for originals having all different thicknesses. In the scanning head 7 for opaque scanning, the illumination system 27, 28, 29, and 31 is used for the point to point illumination of the originals and the illumination system is arranged in the displaceable front panel 9 such that the optical axis 30 extends through the focus range of the scanning objective 11 and as a result the illumination system 27, 28 and 29 always generates a focus illumination point on the original regardless of the position of the front panel 9 or of the scanning objective 11 so that optimum illumination of the originals is always achieved for all thicknesses of originals and also the optimum image is maintained sharp.

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